

WHAT IS CLAIMED IS:

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- Sub A 1
- Sub A 2
1. A method for reducing the size of at least a semiconductor unit in a process of packaging said semiconductor unit, comprising the steps of:
(A) attaching at least a part of a first surface of said semiconductor unit to a carrier; and
(B) etching said semiconductor unit from a second surface of said semiconductor unit until the size of said semiconductor unit meets an expected specification.
 2. The method according to claim 1 wherein said semiconductor unit is etched by means selected from among using gas and using beams of light.
 3. The method according to claim 1 wherein said semiconductor unit is etched by using plasma.
 4. The method according to claim 1 wherein said expected specification means that the thickness of said semiconductor unit measured relative to said first surface is within a specified range.
 5. The method according to claim 4 wherein said specified range is the range spanning between 2 mil and 6 mil.
 6. The method according to claim 1 wherein step (B) comprises a step of shielding at least a part of said semiconductor unit and said carrier to prevent said etching from affecting the quality of said semiconductor unit and said carrier.
 7. The method according to claim 1 further comprising, before step (A), a step of grinding said semiconductor unit until the size thereof approximates said expected specification.
 8. The method according to claim 1 wherein step (B) comprises a step of using a fixture to shield at least a part of said semiconductor unit and said carrier for preventing said etching from affecting the quality

of said semiconductor unit and said carrier.

- Sub A3
9. The method according to claim 1 wherein said semiconductor unit is attached to said carrier according to a configuration selected from among bump connection and lead-on chip packaging.
- 5 10. The method according to claim 1 wherein said carrier is selected from among a chip tray and a chip carrier, and said semiconductor unit includes at least a semiconductor electrical connection device located on said first surface.
- 10 11. A method for reducing the size of at least a semiconductor unit in a process of packaging said semiconductor unit wherein said semiconductor unit includes a first surface, a second surface, and at least a semiconductor electrical connection device located on said first surface, said method comprising the steps of:
- 15 (A) attaching said semiconductor unit to a seating apparatus, with said first surface facing said seating apparatus and said second surface exposed; and
- (B) etching said semiconductor unit from said second surface until the size of said semiconductor unit meets an expected specification.
- 20 12. The method according to claim 11 wherein said semiconductor unit is etched by means selected from among using gas, beams of light, and plasma.
13. The method according to claim 11 further comprising, before step (A), a step of grinding said semiconductor unit until the size of said semiconductor unit approximates said expected specification.
- 25 Sub A4 14. The method according to claim 11 wherein said seating apparatus is selected from among a chip tray, and a chip carrier connectible with said semiconductor unit; and wherein said expected specification means that the thickness of said semiconductor unit measured

relative to said first surface is within a specified range.

15. The method according to claim 11 wherein said first surface is prevented by said seating apparatus from being etched.

5 16. The method according to claim 11 further comprising a step of moving said semiconductor unit from said seating apparatus to a carrier with said second surface attaching to said carrier via adhesive material.

10 17. The method according to claim 11 further comprising a step of moving said semiconductor unit from said seating apparatus to a carrier with said first surface attaching to said carrier via at least a bump.

18. The method according to claim 11 further comprising a step of moving said semiconductor unit from said seating apparatus to a carrier for forming a lead-on chip package.

15 19. A method for reducing the size of at least a semiconductor unit in a process of packaging said semiconductor unit wherein said semiconductor unit includes a first surface, a second surface, and at least a semiconductor electrical connection device located on said first surface, said method comprising the steps of:

20 dividing a wafer into a plurality of dice;
 placing at least one die of said dice onto a seating apparatus, with said second surface exposed;

25 etching said die from said second surface, with said first surface shielded by said seating apparatus and thereby immunized against etching;

 ending etching said die when the size of said die meets a predetermined specification, and moving said die from said seating apparatus to a chip carrier.

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20. The method according to claim 19 wherein said seating apparatus includes a tray which said first surface is in, said predetermined specification means that the thickness of said die measured relative to said first surface is within a predetermined range, and when said die is moved to said chip carrier, said die attaches to said chip carrier in a way selected from among connecting said chip carrier via said first surface and connecting said chip carrier via said second surface according to the type of electrical connection between said die and said chip carrier.

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